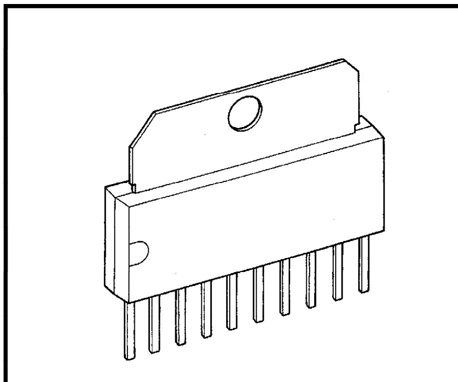
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA7256P

DUAL POWER OPERATIONAL AMPLIFIER

The TA7256P is a dual power operational amplifier.
It is intended for use especially DC MOTOR positioning system applications such as, Arm Driver (for Audiodisk Players), head or voice coil motor drivers (for Floppy and Winchester Disk Drivers) and any other power driver applications.



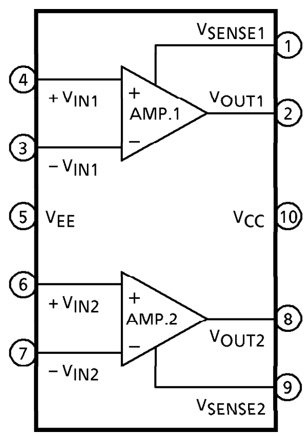
HSIP10-P-2.54

Weight : 2.47g (Typ.)

FEATURES

- HSIP 10Pin Power Package Capsealed.
- Build-in Over Current Protector.
- Few External Parts Required.
- Output Current Up to 1.0A (PEAK)

BLOCK DIAGRAM



961001EBA2

PIN FUNCTION

PIN No.	PIN SYMBOL	FUNCTIONAL DESCRIPTION
1	V_{SENSE1}	AMP.1 output current sensing terminal.
2	V_{OUT1}	AMP.1 output terminal.
3	$-V_{IN1}$	AMP.1 input terminal (−).
4	$+V_{IN1}$	AMP.1 input terminal (+).
5	V_{EE}	Negative-side power supply terminal.
6	$+V_{IN2}$	AMP.2 input terminal (+).
7	$-V_{IN2}$	AMP.2 input terminal (−).
8	V_{OUT2}	AMP.2 output terminal.
9	V_{SENSE2}	AMP.2 output current sensing terminal.
10	V_{CC}	Possitive-side power supply terminal.

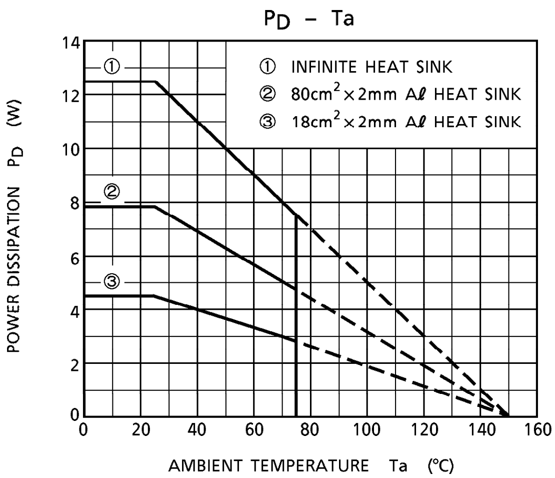
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}, V_{EE}	±18	V
Output Current	$I_{O\ (AVE.)}$	0.5	A
Power Dissipation	P_D (Note)	12.5	W
Operating Temperature	T_{opr}	−30~75	°C
Storage Temperature	T_{stg}	−55~150	°C

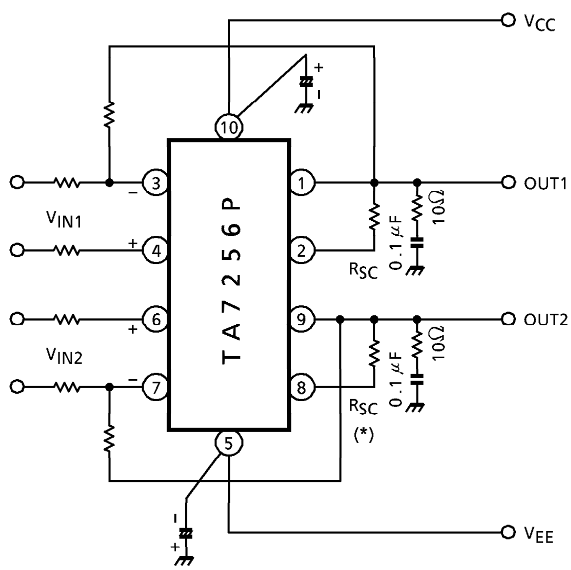
(Note) Tc = 25°C

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{CC} = 15V, V_{EE} = −15V, Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current		I_{CC}	—	—	—	10	20	mA
Input Off Set Current		I_{IO}	—	—	—	10	200	nA
Input Bias Current		I_I	—	—	—	100	700	nA
Input Off Set Voltage		V_{IO}	—	—	—	2	6	mV
Output Voltage Swing	Upper	V_{OH}	—	$R_L = 33\Omega$	12	13.0	—	V
	Lower	V_{OL}			−12	−13.0	—	
Open Loop Gain		G_{VO}	—	—	—	100	—	dB
Input Common Mode Voltage Range		CMR	—	—	±12	±14	—	
Common Mode Rejection Ratio		CMRR	—	—	70	90	—	dB
Supply Voltage Rejection Ratio		SVRR	—	—	—	50	150	μV / V
Band Width		f_T	—	Open loop	—	1.0	—	MHz
Slew Rate		SR	—	$G_V = 0$, $R_L = 33\Omega$ $R = 10\Omega$, $C = 0.1\mu F$	—	0.15	—	V / μs
Short Circuit Current		I_{SC}	—	$R_{SC} = 2.2\Omega$	—	0.35	—	A
Cross Talk		C_T	—	$R_L = 33\Omega$, $V_{OUT} = 1V_{p-p}$	—	60	—	dB



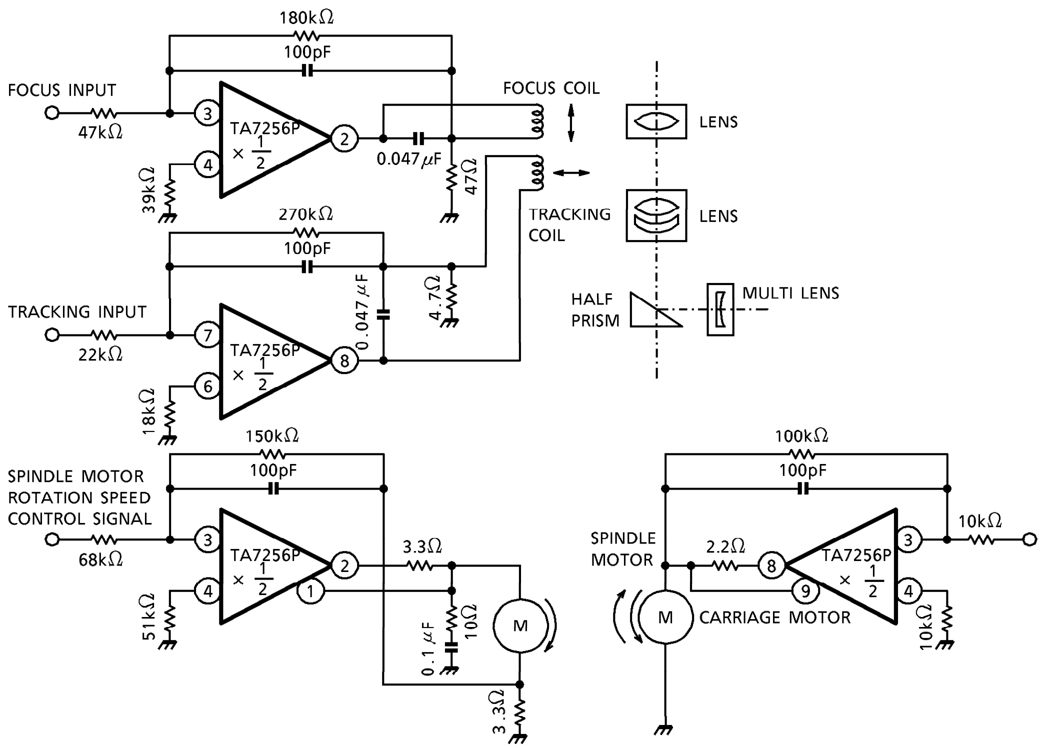
APPLICATION CIRCUIT 1



(*) $I_{SC} \fallingdotseq \frac{0.77\ (V)}{R_{SC}\ (\Omega)}$ (A)

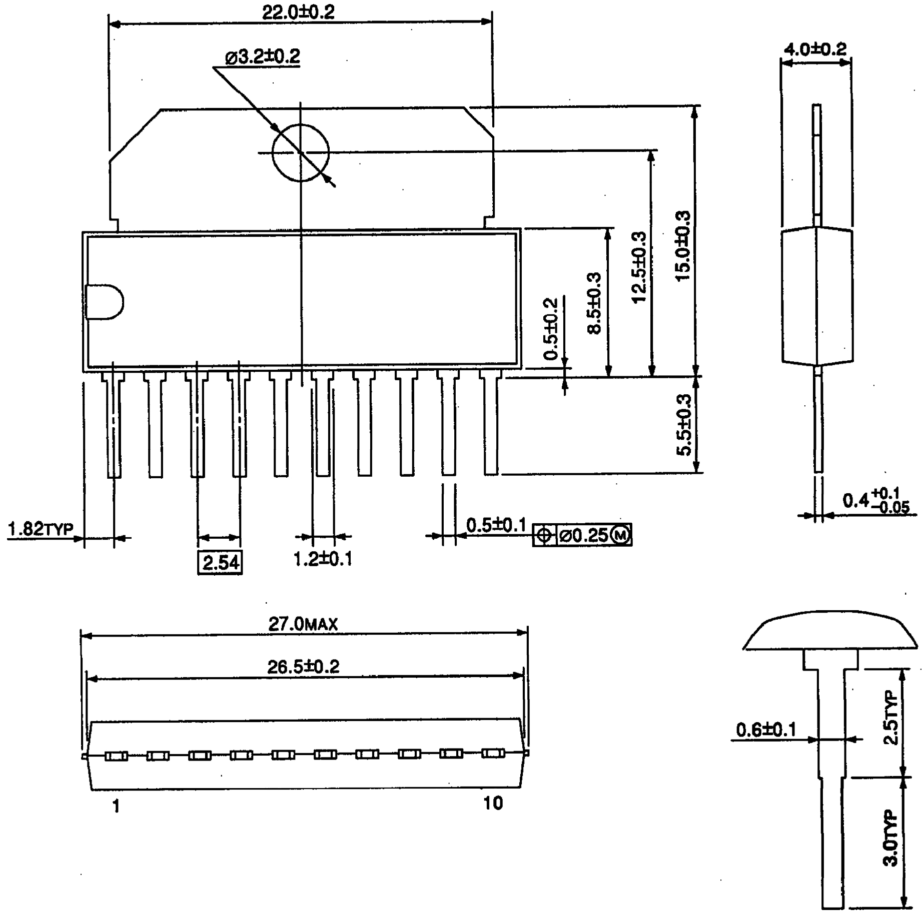
(Note) Utmost care is necessary in the design of the output line, V_{CC} and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

APPLICATION CIRCUIT 2 (Compact disk player use actuator system)



OUTLINE DRAWING

HSIP10-P-2.54 Unit : mm



Weight : 2.47g (Typ.)